

Applicant elects to continue prosecution of Group I, claims 1-18. Please cancel claims 19-24 at this time. Applicant may pursue the non-elected claims in one or more related patent applications.

II. Rejection under 35 U.S.C. § 103

Claims 1-18 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 5,296,464 (hereinafter "the '464 patent"), U.S. Patent No. 5,783,569 (hereinafter "the '569 patent"), and U.S. Patent No. 5,670,138 (hereinafter "the '138 patent")

The Examiner cited the '464 patent as teaching the use of lactoferrin for the treatment of bacterial infections. The '569 patent was cited as teaching the use of beta glucan for the treatment of bacterial infections. The Examiner indicated that it is *prima facie* obvious to combine two or more ingredients each of which is taught by the prior art to be useful for the same purpose in order to form a third composition which is useful for the same purpose.

The Examiner cited *In re Sussman* as holding that no patentable invention resides in combining old ingredients of known properties where the results obtained thereby are no more than the additive effect of the ingredients.

Applicant maintains that the compositions of claims 1-18 are not obvious over the cited references. Attached is a Rule 132 declaration by the inventor, Marcus B. Gohlke. In it, Mr. Gohlke describes how the two components work together in a synergistic manner. The research and development that led to the selection of the two components was not merely combining old ingredients of known properties, and more importantly, the results obtained were greater than the additive effects of the two ingredients.

The specification describes the desired "balanced effect" obtained through the combination of lactoferrin and beta glucan at page 11, paragraph 31 for example. The synergistic effects are further described at page 14, paragraph 42. Examples 3 and 4 demonstrate the positive effects of administering such a composition on sinus infection and cancer patients, respectively.

The claimed compositions are not merely a combination of two known ingredients to obtain an additive effect. The compositions work in a synergistic manner to balance an immune response, leading to the inventive methods described in the specification and in non-elected claims 19-24. Accordingly, Applicant requests that the rejections of claims 1-18 under 35 U.S.C. § 103 be withdrawn.

In light of the above amendments and remarks, reconsideration and withdrawal of the outstanding objections and rejections are respectfully requested. All amendments are made in a good faith effort to advance the prosecution on the merits. Applicant respectfully submits that no amendments have been made to the pending claims for the purpose of overcoming any prior art rejections that would restrict the literal scope of the claims or equivalents thereof. Applicant reserves the right to subsequently take up prosecution of the claims originally filed in this application in continuation, continuation-in-part, and/or divisional applications.

The Examiner is encouraged to call the undersigned should any further action be required for allowance.

Respectfully submitted,



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Clean version of all currently pending claims for U.S. Patent Application Serial No. 10/021,970

1. A composition comprising beta glucan and lactoferrin.
2. The composition of claim 1, wherein the composition is a solid.
3. The composition of claim 1, wherein the composition is in the form of a capsule, lozenge, chewable lozenge, tablet, chewable tablet, or chewable gum.
4. The composition of claim 1, wherein the composition is a liquid.
5. The composition of claim 1, wherein the beta glucan is mushroom beta glucan, yeast beta glucan, or oat beta glucan.
6. The composition of claim 1, wherein the beta glucan is yeast cell wall beta glucan.
7. The composition of claim 1, wherein the concentration of beta glucan is about 1 weight percent to about 10 weight percent.
8. The composition of claim 1, wherein the lactoferrin is mammalian lactoferrin.
9. The composition of claim 1, wherein the lactoferrin is bovine milk lactoferrin.
10. The composition of claim 1, wherein the concentration of lactoferrin is about 0.25 weight percent to about 2.5 weight percent.
11. The composition of claim 1, wherein:
the concentration of beta glucan is about 1 weight percent to about 10 weight percent; and
the concentration of lactoferrin is about 0.25 weight percent to about 2.5 weight percent.
12. The composition of claim 1, further comprising at least one nutritionally acceptable carrier.
13. The composition of claim 1, further comprising at least one nutritionally acceptable diluent.
14. The composition of claim 1, further comprising at least one nutritionally acceptable flavoring.
15. The composition of claim 1, wherein the composition is prepared in an oral dose specific format that promotes absorption of the composition's components within

16. A composition comprising:
about 1 weight percent beta glucan to about 3 weight percent beta glucan;
about 0.5 weight percent lactoferrin to about 1.5 weight percent lactoferrin, and
about 5 weight percent nutritionally acceptable flavoring to about 7 weight
percent nutritionally acceptable flavoring.
17. A composition comprising:
about 2 weight percent beta glucan;
about 1 weight percent lactoferrin; and
about 5.7 weight percent nutritionally acceptable flavoring.
18. A composition consisting essentially of:
about 2 weight percent beta glucan;
about 1 weight percent lactoferrin,
about 5.7 weight percent lemon flavoring;
about 50 weight percent mannitol;
about 40.8 weight percent sorbitol; and
about 0.5 weight percent silicon dioxide.